Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A Baccilariophyta cell capable of undergoing cell division in the dark after 24 hours of culture in the dark ~~An algal cell which grows in substantial absence of light~~, the cell comprising chimeric DNA encoding a protein which will transport a catabolizable carbon source into the Baccilariophyta ~~algal~~ cell, wherein the Baccilariophyta ~~algal~~ cell without the chimeric DNA is a phototrophic cell.

2. (cancelled)

3. (original) The cell of claim 1, wherein the catabolizable carbon source is a monosaccharide or an oligosaccharide.

4. (original) The cell of claim 1, wherein the protein is a disaccharide transporter.

5. (original) The cell of claim 1, wherein the protein is a hexose transporter.

6. (currently amended) A Baccilariophyta ~~An algal~~ cell comprising chimeric DNA which encodes a protein that will transport a catabolizable carbon source into the Baccilariophyta ~~algal~~ cell, wherein the protein is expressed in an amount sufficient to transport into the cell adequate catabolizable carbon source to support heterotrophic cell division ~~growth of the cell~~.

7. (cancelled)

8. (original) The cell of claim 6, wherein the catabolizable carbon source is a monosaccharide or an oligosaccharide.

9. (original) The cell of claim 6, wherein the protein is a disaccharide transporter.

10. (original) The cell of claim 6, wherein the protein is a hexose transporter.

11-26. (cancelled)

27. (currently amended) The cell of claim 1 ~~26~~, wherein the Baccilariophyta ~~algal~~ cell is a *Nitzschia*, *Navicula*, *Thalassiosira*, or *Phaeodactylum* cell.

28. (currently amended) The cell of claim 27, wherein the Baccilariophyta ~~algal~~ cell is *Phaeodactylum tricornutum.*

29. (previously presented) The cell of claim 1, wherein the chimeric DNA further comprises a light harvesting promoter.

30. (previously presented) The cell of claim 29, wherein the light harvesting promoter is a fucoxanthin chlorophyll binding protein (*fcp*) promoter.

31. (previously presented) The cell of claim 30, wherein the *fcp* promoter is *fcpA*, *fcpB*, *fcpC*, or *fcpE.*

32. (previously presented) The cell of claim 1, wherein the catabolizable carbon source is a sugar, fatty acid, amino acid, pyruvate, glycerol, or citrate.

33. (previously presented) The cell of claim 32, wherein the catabolizable carbon source is a sugar.

34. (previously presented) The cell of claim 33, wherein the sugar is sucrose.

35. (previously presented) The cell of claim 33, wherein the sugar is glucose.

36. (previously presented) The cell of claim 4, wherein the disaccharide transporter is a sucrose transporter.

37. (previously presented) The cell of claim 5, wherein the hexose transporter is a glucose transporter.

38. (previously presented) The cell of claim 5, wherein the hexose transporter is Glut1.

39. (previously presented) The cell of claim 5, wherein the hexose transporter is Hup1.

40-42. (cancelled)

43. (currently amended) The cell of claim 6 [[42]], wherein the Baccilariophyta ~~algal~~ cell is a *Nitzschia*, *Navicula*, *Thalassiosira*, or *Phaeodactylum* cell.

44. (currently amended) The cell of claim 43, wherein the Baccilariophyta ~~algal~~ cell is *Phaeodactylum tricornutum*.

45. (previously presented) The cell of claim 6, wherein the chimeric DNA further comprises a light harvesting promoter.

46. (previously presented) The cell of claim 45, wherein the light harvesting promoter is a fucoxanthin chlorophyll binding protein (*fcp*) promoter.

47. (previously presented) The cell of claim 46, wherein the *fcp* promoter is *fcpA*, *fcpB*, *fcpC*, or *fcpE*.

48. (previously presented) The cell of claim 6, wherein the catabolizable carbon source is a sugar, fatty acid, amino acid, pyruvate, glycerol, or citrate.

49. (previously presented) The cell of claim 48, wherein the catabolizable carbon source is a sugar.

50. (previously presented) The cell of claim 49, wherein the sugar is sucrose.

51. (previously presented) The cell of claim 49, wherein the sugar is glucose.

52. (previously presented) The cell of claim 9, wherein the disaccharide transporter is a sucrose transporter.

53. (previously presented) The cell of claim 10, wherein the hexose transporter is a glucose transporter.

54. (previously presented) The cell of claim 10, wherein the hexose transporter is Glut1.

55. (previously presented) The cell of claim 10, wherein the hexose transporter is Hup1.